General Services Administration National Capital Region
Safety, Environment, & Fire Protection Branch (WPYG)

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MEMORANDUM FOR: CARL WHITEHEAD
DC SERVICE CENTER (WPJ)

FROM: JAMES HODGES, CHMM
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SAFETY, ENVIRONMENT AND
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SUBJECT: INDOOR AIR QUALITY SURVEY
3101 PARK CENTER DRIVE
4TH FLOOR
ALEXANDRIA, VA

On November 9th, 2007, Applied Environmental conducted a limited indoor air quality (IAQ) survey of the 4th Floor in the 3101 Park Center Drive Building. The survey was initiated in response to a water intrusions and general indoor air quality concerns. The IAQ survey consisted of the following:

-Atmospheric monitoring (relative humidity & temperature),

-Visual inspection of the designated areas, and

-Collection of microbial air samples (fungi & bacteria)

RESULTS:

Visual Inspection

During the inspection, severe paint damage was noted in Rooms 418 and 438. The underlying drywall was undamaged in both rooms. Discolored drywall was noted in Room 436. Additionally, missing ceiling tiles were noted in Rooms 418, 436 and 438 and a water damaged ceiling tile was noted in Room 438.

All impacted surfaces were found to have low moisture content.

Atmospheric Monitoring

The American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 55-1992 recommends that the temperature of indoor office environments, during summer transitional periods, be maintained between 73° and 79° F. The temperature levels recorded on the day of the screening ranged from 71.2° F to 72.7° F. The temperature levels were slightly below the comfort guidelines established by ASHRAE.

Relative humidity levels ranged from 25.9% to 28.4% indoors. The ASHRAE recommended range is 30-60%. When levels exceed 70%, the environment is conducive to microbial growth.

Microbial Air Sampling

The bioaerosol samples collected on the day of the survey contained low bacteria and fungi concentrations. The fungi concentrations ranged from "No Growth" to 107 CFU/m^3. The fungi concentrations were slightly higher then levels detected outside (53 CFU/m^3). The fungi species Aspergillus was detected inside at a low concentration, however, the presence of this species may indicate a potential source microbial amplification.

The bacteria concentrations were slightly higher than levels detected outside. The bacteria concentrations ranged from 21 CFU/m^3 to 96 CFU/m^3. The bacteria concentration outside was 32 CFU/m^3. Indoor counts are considered to be normal for occupied areas, and do not indicate inadequate ventilation or indoor amplification sites.

The OSHA Technical Manual (Chapter 6-Indoor Air Quality) references a threshold level of 1,000 CFU/m^3 as indicator of indoor microorganism contamination.

CONCLUSIONS/RECOMMENDATIONS:

Upon review of the data provided by Applied Environmental, Inc., all parameters tested were within comfort and regulatory guidelines, with the exception of the temperature levels being slightly below the comfort range. The temperature should be adjusted to maintain the ASHRAE comfort guidelines.

The following additional corrective actions should be implemented to prevent microbial amplification in the water impacted building materials.

- The impacted drywall in Room 436 should be removed. The removal of this water damaged building material should be conducted utilizing protocols outlined in the Environmental Protection Agency (EPA) document "Mold Remediation in Schools and Commercial Buildings". This document is available at the following URL:

http://www.epa.gov/iaq/molds/mold_remediation.html

- The damaged paint in Rooms 418 and 436 should be removed.
- Replace missing ceiling tiles in Rooms 418, 436, and 438
- Replace water damaged ceiling tile in Room 436

This office will schedule follow-up microbial air sampling once these corrective actions have been implemented.

If you have any questions regarding the testing, the report, or our suggested plan of action, please contact me at (202) 708-5253.